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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|---------------------------|---------------------|------------------|
| 10/616,488 | 07/08/2003 | Andreas Norbert Wiswesser | 002562/C3/CMP | 9734 |

7590

10/28/2004

Patent Counsel
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EXAMINER

ROSE, ROBERT A

ART UNIT PAPER NUMBER

3723

DATE MAILED: 10/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/616,488

Applicant(s)

WISWESSER ET AL.

Examiner

Robert Rose

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/8/03, 7/2/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-30 and 38-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-30, 38-40, and 42-47 is/are rejected.
- 7) ☒ Claim(s) 41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>see item 6</u> . | 6) <input checked="" type="checkbox"/> Other: <u>7/8/02, 7/2/04</u> . |

DETAILED ACTION

1. Receipt is acknowledged of Applicant's Prior Art Statements, filed July 8, 2003, and July 2, 2004, respectively.

2. Applicant's election without traverse of Group I in the reply filed on July 2, 2004, is acknowledged.

3. Claims 1-21, and 31-37 have been canceled.

4. Claims 38-47 have been added.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 23-30, 38, 40, 42-43, and 47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 23, line 3 "a second sensor" is recited, and subsequently in line 5 "a second sensor" is again recited. It is unclear whether applicant intended the first instance to read "a first sensor", or whether the same element is being recited twice. In each of claims 27-30, 42-43, and 47, the claim depends either directly or ultimately, from canceled claim 21. Thus the scope of the claims is rendered indefinite.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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8. Claims 22-23, 26-27, 29, 38-39, 40, 42-43, are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Sandhu et al(US 5486129). Sandhu et al discloses a cmp apparatus comprising all of the subject matter set forth in Applicant's claims above. Note in figure 1, and column 6, lines 21-34, the use of plural optical systems(62) embedded in the platen, spaced at different angular positions about the axis of rotation, and coupled to a controller, for determining polishing endpoint.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 28, 30, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sandhu et al('129). To utilize only two optical apertures, as called for in claim 28, to reduce the number of components for the sake of economy would have been an obvious design expedient to those of ordinary skill in the art. To utilize light in the 300-400 nm range, or 600-1500nm range, both in the visible range, to visually monitor the optical systems would have been no more than an obvious matter of design choice to those of ordinary skill in this art.

11. Claims 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sandhu et al in view of Japan No. 403234467. Japan('467) discloses the known use of a solid window in a polishing pad to protect the optical elements. To further provide a conventional solid window in the pad above the platen in Sandhu et al to prevent slurry

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from entering the apertures and damaging the optical system, would have been obvious in view of Japan('447).

12. Claim 41 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. Claims 24-25 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hiyama et al is cited of interest to show a polishing platen having plural optical systems embedded in the platen, each comprising a light source and a sensor. Bibby Jr., et al is cited of interest to show a cmp apparatus in which one embodiment uses plural optical cables and sensors embedded in the pad backer(column 7, lines 21-36), for use in endpoint detection.

15. Any inquiry concerning this communication should be directed to Robert Rose at telephone number (703) 308-1360.

Robert Rose
Primary Examiner
Art Unit 3723



Rr

October 26, 2004.